

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image processing apparatus comprising:

at least one of a an image reading unit which reads ~~an~~ a first image data (~~first image data~~), a an image memory control unit which writes/reads ~~the~~ a second image data (~~second image data~~) by controlling a memory, an image processing unit which processes the first and second image data to obtain a third image data, and an image writing unit which prints an image corresponding to the third image data on a paper; and

an image data control unit which receives at least one of the first image data, the second image data, and the third image data, and transmits received image data to any one of said image memory control unit, said image processing unit, and said image writing unit,

wherein said image memory control unit is commonly used by a plurality of applications including at least one of a facsimile application, a scanner application, a printer application, and a copier application.

Claim 2 (Currently Amended): The image processing apparatus according to claim 1,

wherein said image processing is realized with a processor and ~~the~~ a program of this processor is changeable.

Claim 3 (Currently Amended): The image processing apparatus according to claim 1,

wherein said image processing is realized with an SIMD (~~Signal~~ Single Instruction Multiple Data stream) processor.

Claim 4 (Currently Amended): The image processing apparatus according to claim 1,

further comprising[[,]]:

a first processor which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus; and

a second processor which controls said image memory control unit through a second bus,

wherein said image data control unit controls ~~the~~ an interface between said first bus and said second bus.

Claim 5 (Currently Amended): The image processing apparatus according to claim 4, further ~~comprises~~ comprising:

A7 a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, ~~which~~ said facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

Claim 6 (Original): The image processing apparatus according to claim 5, wherein said image reading unit, said image data control unit, said image memory control unit, said image processing unit, said image writing unit, and said facsimile control unit are configured as independent units.

Claim 7 (Currently Amended): An image processing apparatus comprising:

at least one of a an image reading unit which reads ~~an~~ a first image data (~~first image data~~), an image processing unit which processes the first image data to obtain a second image data, and an image writing unit which prints an image corresponding to the second image data on a paper; and

an image data control unit which receives at least one of the first image data and the second image data, and stores the received image data into a memory, and transmits the image data stored in the memory to any one of said image processing unit and said image writing unit,

wherein said image memory control unit is commonly used by a plurality of applications including at least one of a facsimile application, a scanner application, a printer application, and a copier application.

Claim 8 (Currently Amended): The image processing apparatus according to claim 7, wherein ~~said~~ an image memory control unit ~~has been~~ is connected through said image data control unit to any of said image reading unit, said image processing unit, and said image writing unit, and

wherein said image data control unit transmits the image data stored in the memory to or receives the image data stored in the memory from said image memory control unit ~~and~~, and said image data control unit transmits the image data stored in the memory to any one of ~~said image reading unit~~, said image processing unit[[,]] and said image writing unit.

Claim 9 (Currently Amended): The image processing apparatus according to claim 7, wherein said image processing is realized with a processor and ~~the~~ a program of this processor is changeable.

Claim 10 (Currently Amended): The image processing apparatus according to claim 7,

wherein said image processing is realized with an SIMD (~~Signal~~ Single Instruction Multiple Data stream) processor.

Claim 11 (Currently Amended): The image processing apparatus according to claim 8, further comprising[[,]]:

a first processor which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus; and

a second processor which controls said image memory control unit through a second bus,

wherein said image data control unit controls ~~the~~ an interface between said first bus and said second bus.

Claim 12 (Currently Amended): The image processing apparatus according to claim 11, further ~~comprises~~ comprising:

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a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, ~~which~~ said facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

Claim 13 (Original): The image processing apparatus according to claim 12, wherein said image reading unit, said image data control unit, said image memory control unit, said image processing unit, said image writing unit, and said facsimile control unit are configured as independent units.

Claim 14 (Currently Amended): An image processing apparatus comprising:  
at least one of a an image reading unit which reads ~~an~~ a first image data (~~first image data~~), a an image memory control unit which writes/reads ~~the~~ a second image data (~~second~~

~~image data~~) by controlling a memory, and an image writing unit which prints an image corresponding to the second image data on a paper; and

an image processing unit which receives at least one of the first image data and the second image data, processes the received image data, and transmits the processed image data stored in the memory to any one of said image memory control unit and said image writing unit,

wherein said image memory control unit is commonly used by a plurality of applications including at least one of a facsimile application, a scanner application, a printer application, and a copier application.

Claim 15 (Currently Amended): The image processing apparatus according to claim 14,

wherein said image processing unit ~~has been~~ is connected through said image data control unit to any of said image reading unit, said image memory control unit, and said image writing unit, and

wherein said image data control unit transmits ~~the image data~~ at least one of the first image data and second image data to or receives the processed image data from said image processing unit, and said image data control unit transmits at least one of the first image data, second image data, and processed image data stored in the memory to ~~and~~ any one of said ~~image reading unit~~, said image memory control unit[,], and said image writing unit, and said image data control unit receives at least one of the first image data, second image data, and processed image data stored in the memory from at least one of said image reading unit and said image memory control unit.

Claim 16 (Currently Amended): The image processing apparatus according to claim 14,

wherein said image processing unit ~~comprises~~ includes,

a correcting unit which corrects ~~the~~ a deterioration of ~~the~~ information of the first image data; and

an image quality processing unit which processes ~~the~~ image quality of the received image data corrected by said correcting unit or the second image data in accordance with ~~the~~ an image formation characteristic.

Claim 17 (Currently Amended): The image processing apparatus according to claim 14,

A1 wherein said image processing is realized with a processor and ~~the~~ a program of this processor is changeable.

Claim 18 (Currently Amended): The image processing apparatus according to claim 14,

wherein said image processing is realized with an SIMD (~~Signal~~ Single Instruction Multiple Data stream) processor.

Claim 19 (Currently Amended): The image processing apparatus according to claim 15, further comprising[[,]]:

a first processor which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus; and

a second processor which controls said image memory control unit through a second bus,

wherein said image data control unit controls the an interface between said first bus and said second bus.

Claim 20 (Currently Amended): The image processing apparatus according to claim 19, further ~~comprises~~ comprising:

a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, ~~which~~ said facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

Claim 21 (Original): The image processing apparatus according to claim 20,

wherein said image reading unit, said image data control unit, said image memory control unit, said image processing unit, said image writing unit, and said facsimile control unit are configured as independent units.

Claim 22 (Currently Amended): An image processing method comprising the steps of:

receiving ~~the~~ an image data from any one of a plurality of processing units for processing the image data differently, including ~~the~~ an image data read process, ~~the~~ an accumulation, an image processing (~~manipulation and editing~~), a write operation and ~~the~~ a transmission/receiving process;

storing the image data in an image memory control unit commonly used by a plurality of applications including at least one of a facsimile application, a scanner application, a printer application, and a copier application;

acquiring ~~the~~ image data control information including ~~the~~ information on ~~the~~ contents of the image processing for the image data received at the image data receiving step;

determining a destination processing unit for transmitting the image data received by the image data receiving step, based on the image data control information acquired at the image data control information acquisition step; and

transmitting the image data received by the receiving step to the destination processing unit determined by the ~~destination processing unit~~ determining step.

Claim 23 (Currently Amended): The image processing method according to claim 22, further comprising the step of:

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inputting the image data control information,

wherein the acquiring ~~image data control~~ step acquires the image data control information input at the ~~input~~ inputting step.

Claim 24 (Currently Amended): A computer readable medium for storing instructions, which when executed by a computer, causes the computer to perform the steps of:

receiving ~~the~~ an image data from any one of a plurality of processing units for processing the image data differently, including ~~the~~ an image data read process, ~~the~~ an accumulation, an image processing (~~manipulation and editing~~), a write operation and ~~the~~ a transmission/receiving process;

storing the image data in an image memory control unit commonly used by a plurality of applications including at least one of a facsimile application, a scanner application, a printer application, and a copier application;



acquiring ~~the~~ image data control information including ~~the~~ information on ~~the~~  
contents of the image processing for the image data received at the image data receiving step;

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determining a destination processing unit for transmitting the image data received by  
the image data receiving step, based on the image data control information acquired at the  
image data control information acquisition step; and

transmitting the image data received by the image data receiving step to the  
destination processing unit determined by the ~~destination processing unit~~ determining step.

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